VI Sub-National Debt Sustainability: An Assessment of the State Governments

With government finances deteriorating due to the post-crisis fiscal stimulus, there has been a renewed focus, globally as well as domestically, on working towards a phased reduction of elevated public debts to sustainable levels. While the sharp fiscal deterioration in the late 1990s and early 2000s led to mounting debt at the sub-national level in India, the reversal of the interest rate cycle in the mid-2000s played a critical role in alleviating the interest burden on debt, ensuring that the consolidated state government debt did not grow along an explosive trajectory. This was complemented by efforts at fiscal consolidation and institutional reforms to get onto the fiscal correction path. Debt relief and interest relief provided by the centre were linked with the implementation of reforms and thereby helped avoid moral hazard problems. However, while the focus has been mainly on direct debt obligations, contingent liabilities pose a risk to state finances, unless monitored and adequately controlled. Moreover, the aggregate picture masks interstate disparities and vulnerabilities, which require customised reforms and correction packages rather than a one-size-fits-all approach. An indicator analysis of debt sustainability for states shows progress on most indicators of fiscal and debt sustainability since the onset of fiscal consolidation. Although the essential and sufficient conditions for sustainability were met during the phase of fiscal consolidation, the sufficient condition of primary surpluses has not been fulfilled in the post-fiscal consolidation period, indicating the need to limit non-interest expenditure. Empirical evidence using panel regression analysis shows that apart from the reversal of the interest rate cycle, the higher growth in nominal GSDP and policy measures such as the DSS and the DCRF contributed to the debt reduction. It is, therefore, necessary that states focus more on revenue-enhancing and expenditure compression measures that are more durable to improve their debt sustainability. Since revenues cannot be augmented beyond a certain level and are prone to cyclicality, the focus has to be on expenditure compression to improve the debt sustainability position of the state governments. Strengthened debt management capacity and institutional arrangements at the state level, with a more active risk management approach, will be required to meet future challenges.

1. Introduction

6.1 The consensus on policies prior to the global financial crisis favoured reorienting government finances towards medium-term fiscal sustainability so as to provide a stable environment for the operation of the private sector. With government finances deteriorating due to the post-crisis stimulus, there has been a renewed focus, globally as well as domestically, on working towards a phased reduction of elevated public debts to sustainable levels. In this context, determining the correct size of debt, including its components, is of critical importance for assessing the sustainability. The analysis of fiscal sustainability assumed significance during the late 1980s, with sharp fiscal deterioration witnessed at both the national as well as sub-national levels in India. Fiscal stress and debt repayment pressures have been experienced by state governments in the late 1990s, with continued deterioration evidenced in the early 2000s. Although there has not been any debt default among the Indian states, successive Finance Commissions in India have expressed concern over the growing debt of states and looked at the issue of debt sustainability at the state level within their terms of reference.

6.2 While the progressive decline in average interest rates since 2004-05 played a part in alleviating the interest burden on debt and ensuring that the debt of states does not grow along an explosive trajectory, major reforms were implemented to reverse the fiscal deterioration, develop fiscal responsibility rules to ensure sustained adjustment, and move towards market-based financing of state deficits. Notwithstanding a deviation from the fiscal consolidation path in the wake of expansionary fiscal measures undertaken by some state governments in 2008-09 and 2009-10, the debt-GDP ratio of states exhibited a declining trend during the period and it has continued thereafter.

6.3 Against this background, this chapter undertakes an assessment of the public debt sustainability of state governments. Section 2 deals with the definition and measurement of state government debt. Section 3 provides an overview of the evolution of state government debt in various phases. The role played by Finance Commissions in the states' debt sustainability is detailed in Section 4. Debt restructuring and institutional measures initiated by the central government in fulfillment of the recommendations of the Eleventh and Twelfth Finance Commissions, *i.e.*, the debt swap scheme (DSS) and the debt consolidation and relief facility (DCRF), to restructure and alleviate states' debt and their impact have been dealt with in Section 5. The role of fiscal and debt rules in the debt sustainability of states has been discussed in Section 6. Although the implicit liabilities of state governments including guarantees and off-budget borrowings are excluded from the definition of state government budgetary liabilities, there is risk of these liabilities devolving on the state governments if there are defaults by the borrowing entities. Section 7 discusses the fiscal implications of these contingent liabilities. Section 8 undertakes an assessment of public debt sustainability at the sub-national level in India based on indicator analysis. A vulnerability matrix has also been constructed for the pre-debt consolidation and post-debt consolidation phases to observe the impact of policy-induced debt reduction measures on the debt servicing and debt-GSDP ratios of states. A panel regression framework has been employed to study the relative importance of various fiscal and macroeconomic variables in the determination of debt. Concluding observations and the way forward are provided in the last section.

2. Definition and Measurement of State Government Debt

6.4 Accumulation of debt reflects the outcome of state governments' fiscal operations on the revenue and expenditure sides of their budgets. If expenditure, whether committed or discretionary, exceeds revenues – tax and non-tax – the excess can only be financed through fresh borrowings. If the mismatch in the growth of revenues and expenditure is of a temporary nature, borrowing provides a mechanism by which the gap between the two is bridged. However, if the mismatch persists over a long period and grows in volume, with the increase in revenue receipts turning out to be inadequate to cover the interest liabilities that are required to service the debt, it leads to growing revenue and fiscal deficits. This, in turn, results in unsustainable debt. The sustainable level of fiscal deficits can be derived with reference to three key parameters: growth rate, ratio of revenue receipts to GDP/GSDP and the interest rate on borrowings. The existing level of debt-GDP ratio is also quite material in the context of fiscal sustainability. Fiscal sustainability requires that a rise in fiscal deficit is matched by a rise in the capacity to service the increased debt.

6.5 The terms *debt* and *liabilities* are often used interchangeably. Accordingly, all borrowings that are repayable and/or on which interest accrues are considered as debt. Transparency, reliability and consistency in the data relating to debt are crucial for prudent fiscal management. In this context, determining the appropriate size of debt, including its components, is of critical importance for assessing debt sustainability.

6.6 As regards the compilation of debt of state governments, there have been different approaches adopted by different bodies such as the state governments, the Reserve Bank of India, Office of the Comptroller and Auditor General of India (CAG) and the Finance Commissions (FCs), leading to differences in the measurement of debt (Table VI.1). State debt is classified by the CAG under the three broad categories of (i) internal debt which, *inter alia*, includes ways and means advances (WMA) and overdrafts (OD) from the Reserve Bank, (ii) loans and advances from the central government and (iii) small savings, provident funds and obligations like reserve funds and deposits, both interest and non-interest bearing. While the broad definition of states' debt followed by the FCs includes the same heads as that by the Office of the CAG, their narrow definition excludes WMA and OD from the Reserve Bank. Dholakia and Karan (2004) excluded WMA and OD from the Reserve Bank, but included suspense & miscellaneous and contingency fund in their definition of liabilities.

6.7 There appeared to be no unanimity about the composition and the methodology for compiling the liabilities of state governments in India until 2004-05. In fact, there was a great deal of *ad hocism* in the compilation of debt statistics. In view of the substantial differences in the definition and coverage of liabilities in the publications presenting states liabilities and the need for reliable and credible statistics on public debt comparable across states, a Working Group on 'Compilation of State Government Liabilities' was constituted in the Reserve Bank, which submitted its report in December 2005. Based on the recommendations of the Working Group, the coverage of liabilities of the state governments was made more comprehensive, while ensuring that the compilation of states' liabilities was consistent with gross fiscal deficit. Data on outstanding liabilities[1] reflect the latest available data on various components of debt from their respective primary sources, *viz.,* CAG, the Reserve Bank and Ministry of Finance (MoF), and adding to this the flows on the corresponding items reported in the budget documents of the states for the revised estimates and the budget estimates of the subsequent years.

6.8 Under the revised coverage followed by the Reserve Bank, total outstanding liabilities comprise various items under consolidated fund, public account and contingency fund. Total budgetary liabilities of the state governments are classified under four categories, *viz.*, (i) public debt; (ii) ways and means advances and overdrafts

Table VI.1: Comparison of Measurement of Outstanding Liabilities of States as at end of 2004-05

RBI	FC (Narrow)	FC (Broad)	CAG	Dholakia and Karan (2004)
Loans from the Centre	Loans from the Centre	Loans from the Centre	Loans from the Centre	Loans from the Centre
Internal Liabilities	Internal Liabilities	Internal Liabilities	Internal Liabilities	Internal Liabilities
WMA and OD from RBI		WMA & OD from RBI	WMA & OD from RBI	
State Provident Funds	State Provident Funds, Reserve Funds	Reserve Funds	Reserve Funds	State Provident Funds, Reserve Funds
	Deposits	Deposits	Deposits	Deposits
				Contingency Fund and Suspense & Miscellaneous.

Source: Report of the Working Group on Compilation of State Government Liabilities, December 2005.

[1] As compiled by the Reserve Bank from 2005-06 onwards.

from the Reserve Bank or other banks[2]; (iii) public accounts; and (iv) contingency fund. Public account liabilities relate to liabilities other than those included in the consolidated fund. These liabilities are unfunded, implying huge risks on the budgets of the states. The WMAs from the Reserve Bank are designed to meet temporary liquidity shortfalls, which are formula-based and depend on the states' total expenditures. Under contingency fund, transactions connected with the contingency fund established under Article 267 of the Constitution of India are recorded; it accounts for less than 1 per cent of the total outstanding liabilities of the state governments.

6.9 Borrowing channels for states are multiple, with most of these channels being controlled and restricted by the centre. Market borrowings, the most important of these channels, are controlled by the centre and managed by the Reserve Bank. States may not, without the consent of the central government, raise any loan if they are indebted to the central government (Article 293). The Reserve Bank manages the domestic borrowings of 28 states through separate agreements with each of them. Cost minimisation with minimum rollover risk remains a key objective in the management of states' market borrowings. The state governments issue dated securities, termed state development loans (SDLs), of varying tenors. As a debt manager of the states, the Reserve Bank initially underwrote states' borrowings, but with financial market development, banks and financial institutions have been subscribing directly to these securities floated through a process managed by the Reserve Bank. The method of issuance of market loans has, however, migrated from the administratively controlled system to an auction-based system for all the states since 2006-07. The share of market borrowings in the total liabilities of the states has moved up from 12.2 per cent as at end-March 1991 to 21.1 per cent as at end-March 2005 and further to 37.1 per cent as at end-March 2012.

6.10 State governments, unlike the centre, cannot borrow externally. The centre plays the role of an intermediary in the transfer of external borrowings to the states. Previously, the centre would on-lend the proceeds in rupees at harder terms, after adjusting for exchange rate exposure and elongation of maturities. With the change in lending policy after 2007 in light of the Twelfth Finance Commission's (FC-XII) recommendation, the entire loan proceeds are passed through directly by the centre to the states under the same terms as given by the creditor. The states bear the currency and the refinancing risk, but most states do not undertake an impact evaluation of the cost-risk trade-offs of such borrowings on their total debt portfolios.

3. Evolution of Debt of the State Governments in India

6.11 The evolution of states' debt since the 1980s can broadly be divided into four phases, *viz.,* (i) 1980-81 to 1997-98, (ii) 1998-99 to 2003-04, (iii) 2004-05 to 2007-08 and (iv) 2008-09 to 2012-13 (BE). The first phase was characterised by revenue balance and fiscal deficit with moderate debt levels at around 21 per cent of GDP and a tolerable interest burden covering close to 12 per cent of revenue receipts[3] (Table VI.2). The fiscal deficits during this period were mainly financed through loans from the centre; small savings collections earmarked for the states were also intermediated through these loans. Market borrowings played a subordinate role and its share

[2] Overdrafts extended to Jammu & Kashmir by Jammu and Kashmir Bank (until March 2011) and to Sikkim by the State Bank of Sikkim.

[3] The definitional differences in the coverage of debt in the 1980s and 1990s contributed partly to a lower level of overall debt in the 1980s than in the 1990s.

Table VI.2: Key Fiscal Indicators of States in various phases

(Per cent)

Indicator	Phase I (1980-81 to 1997-98)	Phase II (1998-99 to 2003-04)	Phase III (2004-05 to 2007-08)	Phase IV (2008-09 to 2012-13)
1	2	3	4	5
	Averages			
Revenue Deficit/GDP	0.3	2.5	-0.0	-0.1
Gross Fiscal Deficit/ GDP	2.7	4.1	2.3	2.4
Primary Deficit/GDP	1.3	1.7	-0.0	0.7
Interest Payments/ Revenue Receipts	12.2	23.4	19.2	13.3
Outstanding Debt/ GDP (as at end-March of the ending year of Phase)	21.0	31.8	26.6	21.9

Table VI.3: Outstanding Liabilities of States (As at end-March)

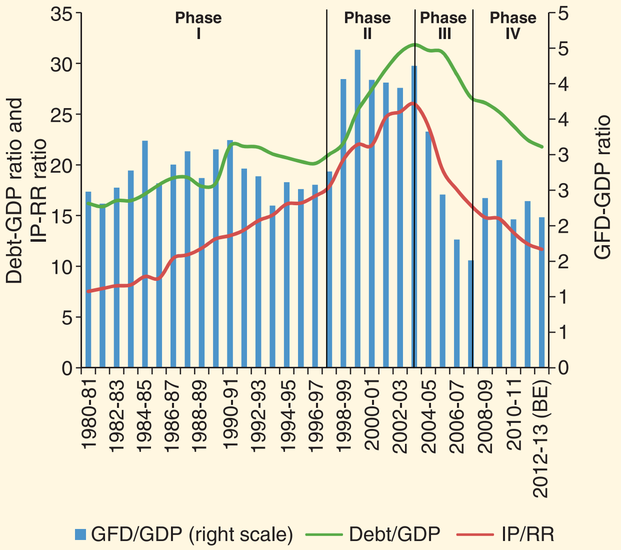
(Per cent to GSDP)

State	Phase I	Phase II	Phase III	Phase IV
	1998	2004	2008	2013
1	2	3	4	5
I. Non-Special Category States				
Andhra Pradesh	24.3	34.3	27.4	22.4
Bihar	38.4	60.4	44.5	28.4
Chhattisgarh	-	27.9	18.3	13.4
Goa	31.9	41.8	33.9	21.8
Gujarat	22.4	37.1	30.5	26.1
Haryana	21.0	27.1	19.4	16.8
Jharkhand	-	23.6	25.4	27.5
Karnataka	20.1	30.5	22.4	22.3
Kerala	29.2	40.5	33.4	27.0
Madhya Pradesh	22.0	36.9	34.0	26.9
Maharashtra	19.0	31.4	23.9	21.0
Odisha	42.3	55.5	33.8	19.5
Punjab	36.8	47.5	36.6	32.0
Rajasthan	30.0	47.6	39.6	28.7
Tamil Nadu	18.8	29.5	21.1	21.7
Uttar Pradesh	35.8	54.7	46.9	37.2
West Bengal	25.7	47.3	45.6	36.3
II. Special Category States				
Arunachal Pradesh	35.7	73.3	59.4	38.3
Assam	28.4	33.2	28.4	22.6
Himachal Pradesh	48.6	69.4	57.4	44.4
Jammu and Kashmir	55.8	66.4	62.1	53.7
Manipur	48.2	61.4	66.8	60.3
Meghalaya	26.3	40.2	33.0	29.0
Mizoram	68.6	112.1	103.5	65.9
Nagaland	37.7	49.6	44.3	48.2
Sikkim	38.2	70.6	68.0	40.4
Tripura	35.3	53.7	38.5	30.0
Uttarakhand	-	40.5	31.9	29.0
All States (in terms of GDP)	**21.0**	**31.8**	**26.6**	**21.9**
Memo Item:				
NCT Delhi	7.5	17.8	16.0	7.6
Puducherry	-	24.1	31.6	40.5

in states' debt remained quite low. The states were able to contain the bulging debt servicing obligations, as the financial surpluses of the household sector were tapped through mandated investments made by financial intermediaries in government securities (including that of states) at lower than market clearing rates. The major proportion of state government securities were held by commercial banks, followed by the Life Insurance Corporation of India and provident funds. The Reserve Bank did not subscribe to state government securities.

6.12 The second phase reflected significant deterioration in all key deficit indicators of the state governments following the implementation of the Fifth Pay Commission Award; significant losses incurred by state public sector undertakings (SPSUs) also adversely impacted the non-tax revenues of the states. As a result, the outstanding debt-GDP ratio of the states at the consolidated level grew from 21.0 per cent during 1997-98 to its peak of 31.8 per cent during 2003-04 (Table VI.3). Interest payments as a share of revenue receipts (repayment burden) rose in tandem, from 17.9 per cent to 26.0 per cent over the same period. This period, was generally characterised by higher interest rates, with the gradual liberalisation of interest rates; the average interest rate on states' borrowings was over 10 per cent during this period (Chart VI.1). Concomitantly, interest payments to

Chart VI.1: Deficit, Debt and Interest Burden of State Governments



revenue receipts ratio, at 23.4 per cent during this phase was significantly higher than the 15 per cent considered tolerable for a sustainable debt level (Dholakia *et al.*, 2004).

6.13 Historically, loans from the centre have been the most important source of borrowings, accounting for 57.4 per cent of the total borrowings of the state governments as at end-March 1991. Three important developments, *viz.,* i) the institution of a National Small Savings Fund (NSSF) effective April 1, 1999, ii) implementation of the DSS during the period 2002-2005 and iii) disintermediation of Plan loans from April 1, 2005 in accordance with the FC-XII, along with financial market developments and states' ability to borrow on their own behalf, significantly reduced the importance of loans from the centre as a financing item of the states' fiscal deficit. With the establishment of the NSSF and the associated changes in accounting norms, small savings collections were channelised through NSSF's investments in state government securities, instead of being intermediated by the centre. This reduced the contribution of fresh loans from the centre to the accretion to states' debt. Repayment of loans to the centre under the DSS further reduced the share of these loans in total outstanding loans of the states to 26.3 per cent at end-March 2005.

6.14 NSSF borrowings are inherently inflexible as they are based more on their availability and collection within the geographical territory of the state than the borrowing requirement of the state (Rangarajan and Prasad, 2012). Thus, this component of state borrowings is exogenously determined, over which neither the state nor the centre has any control. This source emerged as an important source of borrowings by the state governments during the second phase, with its share in total debt rising sharply to 22.0 per cent as at end-March 2004 from 5.0 per cent as at end-March 2000. This characterised a shift from centre-controlled borrowings to the autonomous NSSF but at a higher cost. During this phase, states were allowed to use the auction mode, *albeit* to a limited extent, for accessing market borrowings. Market borrowings, as a source of financing fiscal deficit for the states, increased in importance by 2003-04.

6.15 The third phase (2004-05 to 2007-08) saw the operationalisation of fiscal rules by most states and the consequent improvement in their fiscal deficit-GSDP ratios. The small savings collections increased sharply during this phase and the states had to absorb the predominant share of small savings collections earmarked to them, regardless of the cost of borrowings. As a result, the states' recourse to market borrowings to finance fiscal deficits declined during this phase. By 2006-07, the states were allowed to raise market borrowings entirely through the auction route to allow market determination of yields on their SDLs.

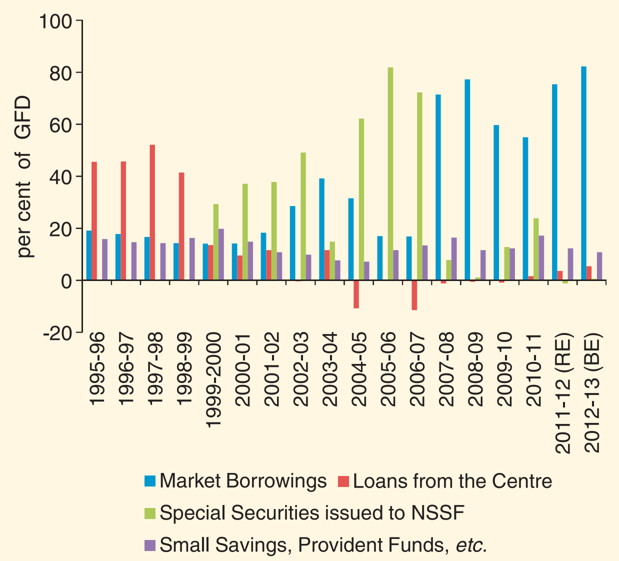
6.16 Market borrowings further grew in importance for financing fiscal deficits during the fourth phase and enabled the states to meet the enhanced financing requirements during 2008-09 to 2009-10 for implementing the Sixth Pay

Commission Award and fiscal stimulus measures, particularly in the wake of a shortfall in small savings collections. Even after the states reverted to fiscal correction from 2010-11, the importance of market borrowings continued, as small savings collections remained low. During this phase, market borrowings have emerged as a dominant source of financing and, on average, accounted for around 65 per cent of the GFD of states.

6.17 The above phases of states' debt reflected only the direct liabilities of states. The state governments also incur contingent liabilities in the form of guarantees issued to SPSUs, which devolve on them in case of default by these undertakings. The above phases mirrored the changing financing pattern of states' debt during the 1990s and 2000s, with a decline in the centre's loan intermediation and on-lending (since 1998-99), an increase in the NSSF borrowings (from 1999-2000) and a move towards market-based financing since the mid-2000s. The shift in the sources and methods of states' borrowing has had a bearing on the interest payments and fiscal deficits of the states (Chart VI.2).

6.18 In addition to the shift in the composition of financing states' fiscal deficits, the states have benefitted in terms of lower interest cost on market borrowings, as the timing of the issuance of state government securities was modulated in line with market conditions to minimise interest costs. This was facilitated by the moderation in fiscal imbalances, following various institutional and fiscal reforms including the enactment of the Fiscal Responsibility and Budget Management (FRBM) Acts by the state governments since the first half of the 2000s.

Chart VI.2: Composition of Financing Pattern of States' fiscal deficits



4. Role of Finance Commissions in States' Debt Sustainability

6.19 Various Finance Commissions (FCs) have expressed concern over the growing debt of the states and highlighted the need to consider the cost of debt while ensuring efficient and productive use of borrowed funds. It has been noted that there is need to restrict the future growth of debt of states through elimination of their revenue deficits. In addition, the borrowed funds need to be used efficiently and productively for financing capital expenditure to improve growth prospects and, in turn, the debt servicing capacity of states.

6.20 Debt sustainability and debt relief issues have been considered since the time of the Second Finance Commission (FC-II), although they have gained more importance from the mid-1980s, with successive FCs recommending debt relief measures of varying magnitudes and bringing in fiscal performance-linked debt relief measures to help states achieve debt sustainability of a more enduring nature. The debt relief granted by various FCs took the form of (i) debt consolidation on common terms and reduction of interest rates, (ii) rescheduling of loans to elongate the repayment period without changes in interest rates, (iii) moratorium on interest payments and repayment of principal for a certain period, (iv) debt write-offs and (v) introduction of schemes that linked debt relief to fiscal performance (Table VI.4). Until the Eighth Finance Commission (FC-VIII), FCs were mandated to suggest debt

Table VI.4 : Debt Relief Measures Recommended by the Finance Commissions

Finance Commission	Year of Report	Debt consolidation and rescheduling at lower interest rates	Rescheduling of loans without lowering of interest rates	Moratorium on interest payments and repayments	Debt write-off	Debt relief linked to fiscal performance	Other recommendations
1	2	3	4	5	6	7	8
Second	1957	√					
Sixth	1974		√				Uniform relief in respect of certain categories of loans and discriminatory relief based on certain principles (relative burden of debt) in regard to other loans.
Seventh	1978	√			√		Categorised central loans into non-productive, semi-productive and productive purposes. Small savings loans may be treated as 'loans in perpetuity'.
Eighth	1984	√		√	√		Grouped states into four categories for the purpose of formulation of debt relief proposals in respect of central loans.
Ninth	1989	√		√	√		General debt relief in relation to Plan loans and linked to performance in respect of investments in power and road transport sectors. Two-year moratorium on principal and interest payments in respect of special loans given to Punjab.
Tenth	1995	√			√	√	A scheme for general debt relief for all states linked to fiscal performance; and all special category states and states with debt problem warranting special attention. Also recommended setting up sinking funds for amortisation of debt and a scheme for encouraging retirement of debt from disinvestment proceeds of state governments.
Eleventh	2000			√	√	√	Recommended setting up an incentive fund in the form of Fiscal Reform Facility (FRF); placing limits on guarantees given by the states through suitable legislation, and to be part of overall limits to borrowings under Articles 292 and 293. This limit also should include borrowings from public account and other sources. Also emphasised the need to set up a sinking fund for the amortisation of debt.

Table VI.4 : Debt Relief Measures Recommended by the Finance Commissions *(Concld.)*

Finance Commission	Year of Report	Debt consolidation and rescheduling at lower interest rates	Rescheduling of loans without lowering of interest rates	Moratorium on interest payments and repayments	Debt write-off	Debt relief linked to fiscal performance	Other recommendations
1	2	3	4	5	6	7	8
Twelfth	2005	√			√	√	Two-pronged approach to debt relief, *viz*., (a) a general scheme of debt relief applicable to all states that enact their Fiscal Responsibility Legislations and (b) a debt write-off scheme linked to fiscal performance as an incentive for achieving revenue balance by 2008-09. Recommended a debt consolidation and relief facility (DCRF) for its award period 2005-10. It also recommended disintermediation of central loans except in the case of fiscally weak states that are not able to raise loans.
Thirteenth	2009	√			√	√	Resetting of interest rate at 9 per cent on loans to states from the NSSF contracted until 2006-07 and outstanding as at the end of 2009-10. Central loans given to state governments for centrally sponsored schemes/ central plan schemes through ministries other than the Ministry of Finance, outstanding as at the end of 2009-10 to be written off, subject to states legislating/ amending their FRBM Acts. Benefit of the DCRF (debt consolidation and interest rate reduction) to be extended to states that could not avail of the same earlier, provided they enact the FRBM Act.

Source: Reports of the various Finance Commissions, India.

relief measures with regard to the overall non-Plan capital gap of states and the purpose of utilisation of central loans while also taking into account the requirements of the centre. From the Ninth Finance Commission (FC-IX) onwards, the commissions were mandated to review the debt position of the states as a whole and suggest corrective measures. FC-IX recommended general debt relief in relation to Plan loans and linked the extent of relief to performance in respect of investment made in infrastructure projects and improvements in financial and managerial efficiency. The Tenth Finance Commission (FC-X) and Eleventh Finance Commission (FC-XI) linked debt relief with fiscal performance. However, it was not until the Twelfth Finance Commission (FC-XII) that debt relief was linked explicitly to rule-based legislative reforms. In a path-breaking move, the

FC-XII recommended debt relief for states contingent upon the enactment of fiscal responsibility laws and incorporation of a fiscal correction path, with milestones for attaining fiscal targets. In keeping with the diverse fiscal situation in states, the Thirteenth Finance Commission (FC-XIII) recommended a state-specific approach for fiscal adjustment based on past fiscal performance (with 2007-08 as the base year), and prescribed differentiated adjustment paths for different groups of states.

5. Central Government Measures to Restructure States' Debt

6.21 To alleviate the interest and debt burden of states, measures were implemented by the centre in the early 2000s. The Government of India formulated a debt swap scheme (DSS) during 2002-03 to mitigate the burden of interest payments on the states, and supplement their efforts towards fiscal management. The Debt Consolidation and Relief Facility (DCRF) introduced during 2005-06, based on recommendations of the FC-XII, provided debt relief through debt consolidation.

Debt Swap Scheme

6.22 The DSS was in operation from 2002-03 to 2004-05 and capitalised on the prevailing low interest regime, to enable states to prepay high cost loans contracted from the central government, through low cost market borrowings and proceeds from small savings. Accordingly, these loans were swapped with additional market borrowings of the states (allocated under the DSS in addition to the normal borrowing allocations) and their net small savings proceeds (up to specified limits) at the prevailing interest rates, over a period of three years ending in 2004-05. The outstanding high cost debt of the states as a proportion to total outstanding debt as at end-March 2002 was 16.5 per cent, with non-special category (NSC) states accounting for around 94 per cent. Among the NSC states, West Bengal had the highest proportion of high-cost debt in its total debt (23.2 per cent) as at end-March 2002, followed by Gujarat (20.0 per cent), Maharashtra (19.7 per cent) and Haryana (17.8 per cent). Among the special category (SC) states, Himachal Pradesh had the highest share of high-cost debt to total debt at 20.2 per cent, followed by Arunachal Pradesh (18.6 per cent) (Table VI.5).

6.23 Of the total debt swapped between 2002-03 and 2004-05 amounting to ₹1020.3 billion, about ₹535.7 billion (52.5 per cent) was financed through additional market borrowings at interest rates below 6.5 per cent, *i.e.,* at less than half the earlier cost, and the remaining ₹483.9 billion (47.4 per cent) was financed through the issue of special securities to the NSSF at interest rates fixed at 9.5 per cent, *i.e.,* at less than three-fourths of the earlier rate of 13 per cent (Table VI.5). The states that relied on additional market borrowings for swapping their high-cost debt included Punjab, West Bengal, Bihar, Odisha and Kerala. The states that financed their high-cost debt predominantly through issuance of special securities to the NSSF were Maharashtra, Goa, Tamil Nadu and Gujarat. Among the states, Maharashtra had the largest share (14.4 per cent) in the total debt swapped, followed by Uttar Pradesh (11.0 per cent), Gujarat (9.5 per cent) and West Bengal (9.0 per cent).

6.24 Clearly, this scheme reduced the interest burden of states. The average interest on the debt stock aggregated across states showed a decline from 10.4 per cent in 2001-02 to 9.6 per cent by 2004-05. However, the DSS, *ipso facto*, had been debt neutral as it involved the swapping of one form of debt with another. While the repayment of loans to the centre reduced the debt of the states, the additional markets borrowings and small savings transfers increased the debt by an equal magnitude. Over the scheme period (2002-03 to

Table VI.5: State-wise amounts adjusted under the Debt Swap Scheme (DSS) during 2002-03 to 2004-05

(Amount in ₹ billion)

States/Year	Outstanding high cost loan as on March 31, 2002	Outstanding high cost loans/ Outstanding debt as at end-March 2002 (Per cent)	2002-03			2003-04			2004-05			Total Debt swapped till March, 2005.
			Debt swapped			Debt Swapped			Debt Swapped			
			AOMB	SSL	Total	AOMB	SSL	Total	AOMB	SSL	Total	
1	2	3	4	5	6	7	8	9	10	11	12	13
I. Non-Special Category (NSC) States												
1 Andhra Pradesh	68.93	14.2	8.27	3.34	11.61	16.62	10.73	27.35	14.76	19.49	34.25	73.21
2 Bihar	49.83	14.6	5.97	1.91	7.88	12.18	6.21	18.39	9.10	9.20	18.30	44.58
3 Chhatisgarh	12.45	15.3	1.49	0.61	2.10	2.93	2.03	4.96	1.07	3.58	4.65	11.72
4 Goa	3.74	9.9	0.45	0.21	0.66	1.20	1.42	2.62	0.00	0.78	0.78	4.06
5 Gujarat	95.64	19.9	11.47	5.98	17.45	21.73	19.43	41.16	12.49	25.50	37.99	96.60
6 Haryana	31.63	17.8	3.79	1.51	5.30	7.51	5.12	12.63	5.69	8.51	14.20	32.13
7 Jharkhand	16.87	16.9	2.05	1.16	3.21	2.66	4.13	6.79	2.28	2.47	4.75	14.75
8 Karnataka	50.78	16.2	6.09	2.22	8.31	11.97	8.20	20.17	10.88	17.06	27.94	56.42
9 Kerala	28.72	9.7	3.44	1.18	4.62	6.71	4.94	11.65	4.68	5.11	9.79	26.06
10 Madhya Pradesh	34.32	13.2	4.11	1.77	5.88	7.86	7.22	15.08	3.98	8.29	12.27	33.22
11 Maharastra	154.34	19.6	0.00	0.00	0.00	36.27	28.98	65.25	18.46	63.01	81.47	146.71
12 Odisha	32.28	11.5	3.87	0.88	4.75	6.45	2.31	8.76	3.08	5.35	8.43	21.94
13 Punjab	59.76	16.7	7.17	2.75	9.92	14.40	10.13	24.53	12.80	6.34	19.14	53.59
14 Rajasthan	57.81	13.9	6.93	3.41	10.34	10.96	8.32	19.28	11.56	16.80	28.36	57.98
15 Tamil Nadu	57.49	14.7	6.89	2.53	9.42	13.41	11.36	24.77	9.36	23.66	33.02	67.21
16 Uttar Pradesh	160.98	16.8	14.48	5.73	20.21	30.88	17.98	48.86	15.86	26.91	42.77	111.82
17 West Bengal	154.13	23.2	0.00	0.00	0.00	33.65	21.42	55.07	23.35	13.33	36.69	91.76
Total NSCS	**1069.67**	**16.6**	**86.47**	**35.18**	**121.65**	**237.40**	**169.92**	**407.32**	**159.39**	**255.40**	**414.79**	**943.76**
II. Special Category (SC) States												
1 Arunachal Pradesh	1.47	18.6	0.18	0.02	0.20	1.10	0.11	1.21	0.00	0.05	0.05	1.45
2 Assam	19.26	16.1	2.31	0.62	2.93	4.57	3.59	8.16	2.43	3.33	5.76	16.85
3 Himachal Pradesh	20.31	20.2	2.44	0.46	2.90	5.16	1.73	6.89	4.35	3.15	7.50	17.30
4 Jammu & Kashmir	14.95	15.5	1.77	0.00	1.77	3.89	1.96	5.85	3.20	2.29	5.49	13.11
5 Manipur	1.52	8.1	0.18	0.02	0.20	1.08	0.06	1.14	0.00	0.05	0.05	1.39
6 Meghalaya	1.43	9.4	0.17	0.03	0.20	0.77	0.15	0.92	0.00	0.23	0.23	1.35
7 Mizoram	1.08	6.3	0.13	0.02	0.15	0.66	0.08	0.74	0.00	0.08	0.08	0.96
8 Nagaland	1.20	6.4	0.14	0.02	0.16	0.87	0.04	0.91	0.00	0.03	0.03	1.10
9 Sikkim	0.66	7.1	0.00	0.01	0.01	0.45	0.07	0.52	0.06	0.09	0.15	0.67
10 Tripura	3.09	10.9	0.37	0.16	0.53	1.28	0.44	1.72	0.00	0.80	0.80	3.05
11 Uttarakhand	8.53	17.0	5.84	0.65	6.49	9.75	1.28	11.03	0.00	1.82	1.82	19.34
Total SCS	**73.50**	**15.2**	**13.53**	**2.01**	**15.54**	**29.57**	**9.51**	**39.08**	**10.04**	**11.92**	**21.96**	**76.57**
Grand Total	**1143.17**	**16.5**	**100.00**	**37.19**	**137.19**	**266.97**	**179.43**	**446.40**	**169.43**	**267.32**	**436.75**	**1020.34**

AOMB: Additional Open Market Borrowings. SSL: Small Savings Loans
Source : Ministry of Finance, GoI

2004-05), interest savings on account of lower interest payments helped reduce the pressure on the states' revenue account and, thereby, on their overall borrowing requirements.

Debt Consolidation and Relief Facility (DCRF)

6.25 The DCRF, recommended by the FC-XII, had two components of relief, *viz.,* debt consolidation and debt write-off. Debt consolidation provided for consolidation of all central loans (from the MoF) contracted by the states until March 31, 2004 and outstanding as on March 31, 2005 into fresh loans for 20 years to be repaid in 20 equal installments carrying a lower interest rate of 7.5 per cent, subject to the condition that the state government concerned enacted its FRBM Act. Repayments due from states during the period 2005-06 to 2009-10 on these loans were eligible for write-off. The quantum of debt write-off was linked to the absolute amount by which the revenue deficit was reduced in each successive year during the award period. The debt write-off scheme was also linked to absolute reduction of the revenue deficit with a set of conditionalities. For year t, the yearly write-off was obtained by applying a given ratio for each state to the absolute reduction in the revenue deficit in year (t-1), relative to year (t-2). There was also a minimum condition. The write-off in year t was enabled only if the absolute fall in the revenue deficit in year (t-1) relative to year (t-2) exceeded the amount of the interest concession in year t. Both these applied to the absolute revenue deficit. There was also a requirement that the fiscal deficit should be capped at the absolute amount in 2004-05. However, if a state was able to bring its revenue deficit down to zero by the targeted year *i.e.,* 2008-09, the entire repayments due from the state during the FC-XII award period were to be written off.

6.26 The scope of the DCRF excluded two categories of loans, *viz.,* loans in the form of the NSSF's investment in state government special securities and central loans given to state governments for centrally-sponsored schemes/ central plan schemes through central ministries/ departments other than the Ministry of Finance. NSSF investments were excluded from the scope of debt relief on the ground that the NSSF is maintained in the public account of the Government of India, and central loans not administered by the MoF were excluded on the ground that data for the same were not available.

6.27 Twenty-six states availed of debt consolidation during the period 2005-06 to 2009-10; the details at the consolidated level are given in Table VI.6. Sikkim and West Bengal failed to receive the benefit of debt consolidation during the period, not having met the condition of enacting the FRL. Cumulatively, central loans amounting to ₹1223.5 billion have been consolidated, which is lower than the FC-XII estimate by ₹64.5 billion. The difference is attributable to a disparity in the actual base year stock of debt and delays in enactment of FRLs by some states. The debt consolidation resulted in interest relief amounting to ₹186.9 billion to these states during the period 2005-06 to 2009-10 as against ₹212.8 billion estimated by the FC-XII. As regards the debt relief component, a total benefit of ₹197.3 billion accrued to the states by the end of 2009-10.

6.28 The FC-XIII extended the DCRF to the two states of Sikkim and West Bengal during 2010-15, provided they put in place their FRBM Act. Effective from 2010-11, the loans of West Bengal and Sikkim too have been consolidated on the terms and conditions of the FC-XII, as these two states enacted their FRBM Acts in 2010.

Table VI.6: Summary of Performance under the DCRF

(₹ billion)

Item	Estimated by FC-XII for 2005-10	Availed of by States under the DCRF
1	2	3
Debt Consolidation	1288.0	1223.5
Interest Relief	212.8	186.9
Debt Relief (waiver)	322.0	197.3

6.29 NSC states accounted for 94 per cent of the total debt consolidated, while the share of SC states amounted to 6 per cent. In absolute terms, Uttar Pradesh, Andhra Pradesh and Gujarat, among the NSC states, have benefitted the most in terms of debt consolidation, while Assam and Himachal Pradesh were the major beneficiaries among the SC states (Table VI.7).

6.30 The consolidated debt of the states as a proportion to total outstanding debt as at end-March 2009 was 7.4 per cent. Odisha, Bihar and Chhattisgarh, among the NSC states, had the largest proportion of outstanding debt, which was consolidated during the period 2005-10. Within the SC states, the proportion of consolidated debt to total debt was the highest for Manipur, followed by Arunachal Pradesh. The resultant interest rate relief to all the states in aggregate was, on average, 3.8 per cent of the interest payments during the period 2005-06 to 2009-10. Uttar Pradesh, Bihar, Andhra Pradesh and Madhya Pradesh have benefitted the most among the NSC states, while Arunachal Pradesh and Tripura benefitted the most among the SC states. The debt waiver was 2.7 per cent of central loans for all the states during the period 2005-2010. With regard to the debt waiver component, Odisha, Chhattisgarh and Madhya Pradesh have benefitted the most among the NSC states while Tripura and Assam benefitted the most among the SC states (Table VI.7).

6.31 Reflecting the impact of the DCRF in terms of debt write-off and interest relief on outstanding central loans, there has been a significant reduction in the average interest rate paid on outstanding debt since 2004-05 (Chart VI.3).

6. Role of Fiscal Rules in Debt Sustainability

6.32 In order to ensure fiscal discipline, *ex ante* fiscal and debt rules for sub-national governments (SNGs) have been introduced in several countries. These rules take the form of stipulations, such as

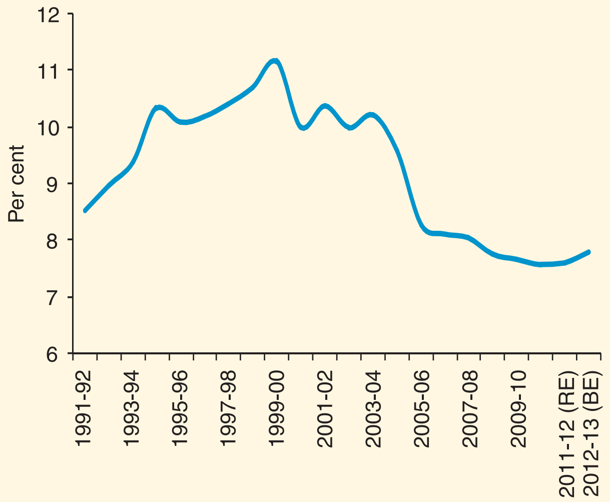
Table VI.7: State-wise Debt Relief and Interest Relief on account of the DCRF

(₹ billion)

State	2005-06 to 2009-10		
	Debt Consolidation	Debt Relief	Interest Relief
1	2	3	4
I. Non-Special Category (NSC) States			
1 Andhra Pradesh	140.6	25.9	25.2
2 Bihar	77.0	7.7	12.7
3 Chhattisgarh	18.7	4.7	3.1
4 Goa #	4.0	0.4	0.6
5 Gujarat	94.4	17.3	16.7
6 Haryana	19.3	2.9	3.0
7 Jharkhand *	21.0	3.1	2.1
8 Karnataka	71.7	14.3	13.1
9 Kerala	41.8	2.5	7.0
10 Madhya Pradesh	72.6	18.2	13.2
11 Maharashtra	68.0	13.6	9.9
12 Odisha	76.4	19.1	9.6
13 Punjab	30.7	3.7	6.0
14 Rajasthan	61.7	9.3	8.9
15 Tamilnadu	52.7	13.2	9.1
16 Uttar Pradesh	212.8	31.9	39.1
17 West Bengal $	86.3	0.0	0.0
Total NSCS	**1149.6**	**187.8**	**179.3**
II. Special Category (SC) States			
1 Arunachal Pradesh	4.0	0.4	0.7
2 Assam	21.1	4.2	1.6
3 Himachal Pradesh	9.1	1.2	1.6
4 J&K	15.2	0.0	1.0
5 Manipur	7.5	1.5	0.3
6 Meghalaya #	3.0	0.4	0.4
7 Mizoram #	2.6	0.3	0.4
8 Nagaland	3.2	0.3	0.6
9 Sikkim $	1.1	0.0	0.0
10 Tripura	4.4	0.9	0.8
11 Uttarakhand	2.6	0.3	0.3
Total SCS	**73.9**	**9.5**	**7.6**
III. Grand Total	**1223.5**	**197.3**	**186.9**

Consolidation effective from 2006-07.
* Consolidation effective from 2007-08.
$ Consolidation effective from 2010-11, under recommendations of 13th Finance Commission.
Source: Indian Public Finance Statistics 2011-12, MoF, GoI.

Table VI.3: Average Interest Rate on Outstanding Debt of State Governments



setting limits on the stock of debt or the issuance of new debt; restricting the use of long-term borrowings to public capital investments only, thereby entailing balanced budgets net of investments; linking debt stock limits to key fiscal variables such as the cost of debt service or the ability to service the debt; and establishing medium-term fiscal responsibility frameworks, indicating a desirable debt path and transparent budgetary processes. Often stipulation of appropriate limits for debt of SNGs is subject to intensive debates, given the scope of bail-outs/ support available from the central government. The debt ceilings are also supplemented by a ceiling on public guarantees in fiscal rules to minimise the circumvention of debt ceilings through the issuance of guarantees (Minassian, 2010). In India, all the state governments have enacted their FRBM Acts (Box VI.1). While only 18 states had specific debt ceilings in their original FRBM Acts, all states except Goa have amended their FRBM Acts and have adopted the annual debt targets set by the FC-XIII. The design of fiscal rules varied across states, although there has been a move towards standardisation in the process of enactment of amended FRLs. The debt ceilings in the original FRBM Acts were linked to three indicators, *viz.*, GSDP, revenue receipts and receipts in the consolidated fund of the states. However, in pursuance of the FC-XIII's recommendations, all the states have fixed their debt ceilings in terms of GSDP (Annex).

Box VI.1
Fiscal Rules at the Sub-National Level

Vertical imbalances in revenue and expenditure assignments pose challenges for the fiscal discipline of sub-national governments (SNG). Increased obligations of SNGs without a commensurate increase in revenues necessitate recourse to debt. Both in developed and developing countries, free-spending SNGs exhibit a tendency to build up unsustainable deficits that may call upon central governments to provide special bail-out transfers or otherwise assume their liabilities (Rodden, 2001). Buiter and Patel (2010) have given four reasons for unease when a country's public sector debt and deficit are high and/or rising. First, there is a possibility of the government becoming insolvent. Second, financial crowding out could take place. Third, unsustainable fiscal policy could contribute to volatility and uncertainty, which, in turn, may adversely affect investment and growth. Fourth, monetisation of persistent deficit could have inflationary consequences.

Over the past three decades, fiscal institutional arrangements, such as fiscal rules and medium-term budget frameworks, have been put in place around the world in support of more prudent and more balanced fiscal policies (Schaechter *et al.*, 2012). There are four inter-related objectives for fiscal rules: (a) long-term fiscal sustainability (b) short-term economic stability; (c) aggregate efficiency, in the form of balancing the marginal excess burden arising from the taxes with the marginal benefits of public spending; and (d) allocative efficiency of public spending, as reflected in the matching of public services with local preferences (Sutherland *et al.*, 2005). Fiscal rules also help overcome co-ordination problems between different levels of government and strengthen fiscal discipline by correcting incentives, enhancing accountability and anchoring economic agents' expectations (Escolano *et al.*, 2012).

(Contd....)

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Fiscal rules may be numerical or procedural. The first type of rules sets intermediate objectives - budget balance requirements, debt accumulation constraints and limits on expenditure - that help achieve fiscal policy goals and ensure fiscal sustainability. The second type of rules focuses on the process of implementing objective-setting fiscal rules, such as requirements for transparency in financial accounting, reporting and monitoring; sanctions levied in case of violation; and flexibility in fiscal rules under certain circumstances.

The choice of an appropriate fiscal rule depends on the wider budgetary setting and institutional arrangements governing the relationship between the centre and SNGs, and is influenced by the following factors: (1) Expenditure assignments - If decentralised provisions involve politically-sensitive public services to be provided by the SNGs, it will become difficult for central governments to resist bailing out deficit-prone SNGs; (ii) Revenue assignment - The source of income assigned to SNGs affects the fiscal rules needed, because disparity between income and expenditure assignments often requires mitigation from a fiscal rule and SNGs with more revenue autonomy tend to run smaller deficits; (iii) Market discipline -Financial markets can substitute for other monitoring mechanisms of SNGs by imposing higher borrowing costs on SNGs pursuing imprudent fiscal policies; (iv) Political setting - This can influence the requirement of fiscal rules for SNGs.

Fiscal rules introduce some trade-offs and side effects. First, budget balance requirements and borrowing constraints make fiscal policy pro-cyclical. A rule that covers total spending could be biased against investment, because it is easier to alter capital expenditure than current expenditure in the short term, leading to allocative inefficiencies. Second, growth of taxation and spending could be controlled by tax and expenditure limits, but this could lead to allocative distortions. Limits on expenditure are related to lower borrowing costs, while more stringent tax limits tend to be associated with higher borrowing costs that are seen by financial market participants as introducing a greater risk of default. Expenditure limits applied across the board may lead to rationing of key public services. Third, rules having limited coverage could be easily evaded by SNGs; for example, tax limitations may provoke a shift in revenue raising through user charges and service fees.

Faced with different objectives and trade-offs, SNGs need to adopt multiple rules. The conflicts are often resolved in different ways. First, the design of the rule can factor in the main source of bias in spending. Second, when politically-induced spending is expected to cause expenditure drift, expenditure limit may be better suited for restraining public sector growth. Third, in case cyclical variability in revenues is important, multi-annual budgets may allow a degree of flexibility over the cycle, and expenditures influenced by cyclicality, such as unemployment benefits, can be excluded from expenditure limits. Fourth, the requirement to disseminate information on a standardised and regular basis can work as a deterrent for SNGs to evade the strictures of the rules.

In a world where information asymmetry exists between SNGs and the authorities at higher levels of government, an effective system of monitoring becomes important. Monitoring could be *ex ante*, *ex post*, or both. An *ex post* monitoring contributes more to rule adherence than *ex ante* monitoring. Nonetheless, *ex ante* monitoring is important from the viewpoint of a realistic assessment of the economic assumptions included in budget forecasts. Such monitoring could be done by independent bodies that monitor, audit, and report the budgetary actions of SNGs. The availability of sufficient standardised information can also serve the purpose of monitoring.

Financial markets are expected to impose fiscal discipline on SNGs. While this seems to be the case in the U.S. and Canada where the interest rate spread gets linked to the creditworthiness of each sub-national entity, the experience of SNGs in Germany and Mexico indicates that financial market discipline may not be sufficient to exert discipline over sub-national government borrowings. This is attributed to an implicit bail-out commitment by the central government or a large share of central transfers in the total revenues of the SNGs. Lemmen (1999) noted that yields across Germany are similar irrespective of the financial state of the lender. Sutherland *et al.* (2005) found, for a cross-section of countries, a negative correlation between the strength of SNG fiscal rules and the increase in SNG debt.

Compliance with rules is complemented by the sanctions and enforcement mechanism. The credibility of rules is established through the severity of sanctions (financial or administrative). In the absence of effective sanctions, failure to meet targets may only lead to a change in the baseline target for the next budgetary period. There is also a need for some flexibility in implementation of rules to ease some of the problems in coping with unanticipated economic shocks.

A number of countries have adopted numerical fiscal rules to promote fiscal discipline at the sub-national level. The incorporation of debt targets in fiscal rules is typically motivated by a desire to ensure inter-generational equity, reduce crowding out, provide more room to manoeuvre fiscal policy in situations of major shocks and absorb contingent liabilities without threatening debt sustainability.

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Brazil, Colombia, Peru, Mexico, Japan, Korea and Hungary have fiscal rules restricting new borrowings or debt level or the debt service of their sub-nationals. Considering the scope for SNG's borrowings through the ownership and control of local enterprises and banks, several countries impose special restrictions on borrowing from or by these enterprises. While developed countries depend more on a market-based approach for supervision over SNG's debt, emerging economies mostly apply an administrative approach.

In India, central and state governments have adopted a rule-based fiscal framework through the enactment of Fiscal Responsibility Budget Management (FRBM) Acts to provide impetus to the process of attaining fiscal sustainability. Many state governments voluntarily introduced their own FRBM Acts even before the enactment of the FRBM Act in 2003 by the central government. Karnataka was the first among the states to enact its FRBM Act in September 2002 followed by Kerala (2003), Tamil Nadu (2003), and Punjab (2004). All other states were encouraged to adopt such legislations to avail of the benefits under incentive schemes recommended by the Twelfth Finance Commission. The report of the 'Group on Model Fiscal Responsibility Legislation at State Level (2005)' provided guidance to the states for enacting their FRBM Acts. West Bengal (2010) and Sikkim (2010) were the last to enact their FRBM Acts. All state governments, with the exception of Goa, have amended their FRBM Acts based on the roadmap provided by the Thirteenth Finance Commission (FC-XIII) for fiscal correction and consolidation in the medium term[3]. A study by Simone and Topalova (2009) on the effect of fiscal rules on the fiscal performance of states in India found that the contribution of fiscal rules in the fiscal adjustment of the states was not statistically significant. However, fiscal adjustment was observed to be larger in states where the fiscal rules included a specific debt target or expenditure rules. Available data shows that states have, over the years, brought down their debt-GSDP ratios in line with the stipulation in their FRBM Acts.

7. Fiscal Implications of Contingent Liabilities of the States

6.33 To meet the growing infrastructure requirements, states have been undertaking investments under the public-private partnership (PPP) route through special purpose vehicles (SPVs), which have often formed partnerships with private financiers and operators. In addition, SPSUs in general, and electricity and road transport sectors in particular, borrow directly from banks/financial institutions, backed by explicit and implicit guarantees extended by the state governments. Thus, apart from the confirmed liabilities, there are also contingent liabilities of the state governments that arise on account of guarantees issued to facilitate the borrowings of SPSUs/SPVs. The fiscal risk of the state government guarantees may turn out to be very high in case these enterprises fail to generate adequate own revenues to meet their repayment obligations.

6.34 In India, while the fiscal position of the states in terms of key deficits and debt as ratios to GDP has shown improvement in recent years, this may not be as encouraging as it appears if the liabilities of the SPSUs and contingent liabilities arising out of guarantees issued to them are taken into consideration. Contingent liabilities do not form part of the states' debt obligations, but in the event of default by borrowing entities, the states are required to meet the debt service obligations of these defaulting entities. Therefore, contingent liabilities assume importance in the analysis of the public finances of state governments. In 2001, the Reserve Bank constituted a working group to assess the fiscal risk of state government guarantees. Recognising that a major constraint in analysing the true fiscal position of states was the

[3] The FRBM Act of Goa, enacted in 2006 contains the fiscal consolidation roadmap which is in line with the recommendations of the FC-XIII for the first three years of the award period (*i.e.,* 2010-11 to 2012-13)

absence of a consistent and standard pattern of reporting data on guarantees in the state budgets, the group recommended that a uniform format be used to regularly publish data regarding guarantees in the state budgets. An internal working group on 'Information on state government guaranteed advances and bonds' set up by the Reserve Bank in 2003 emphasised that transparency in information disclosure was crucial to enhance market discipline, which also required proper rating of projects guaranteed by the state governments. With an increase in fiscal transparency at the state government level, particularly after the enactment of the respective FRBM Acts, the states have started disseminating information on outstanding guarantees in the FRBM statements released along with their budget documents. However, only 14 states publish it in the prescribed format, of which 9 provide information on outstanding risk-weighted guarantees.

6.35 In view of the fiscal implications of guarantees, many states have taken initiatives to place ceilings (statutory or administrative) on guarantees. To contain the fiscal risks associated with the guarantees, Guarantee Redemption Funds have been set up by 10 states. Although there has been a decline in the total outstanding guarantees extended by state governments, an increase in the share of guarantees issued to financially ailing SPSUs is an area of concern. Moreover, the contingent liabilities of state governments could be much higher than is evident from their budget documents/finance accounts, if the 'letters of comfort' extended to SPSUs, including power utilities, are included.

6.36 As already mentioned, contingent liabilities of state governments also arise on account of PPP projects undertaken at the state government level. The FC-XIII recognised explicit and implicit obligations for the public entities involved in PPP projects. While explicit contingent liabilities are in the form of stipulated annuity payments over a multi-year horizon, implicit contingent liabilities represent obligations to compensate private sector partners for contingencies such as changes in specifications, breach of obligations and early termination of contracts, and are difficult to quantify. States are expected to quantify expenditure obligations relating to PPP projects in their medium-term fiscal policy statements, with an increasing number of them adopting the PPP mode of project implementation.

8. Assessing Debt Sustainability at the SNGs Level

6.37 The growing importance of sub-national debt in recent decades reflects the interplay of three structural factors (Canuto and Liu, 2010). First, with the progressive drive towards decentralisation, the expenditure responsibilities of SNGs have grown in several countries along with the SNGs being granted revenue-raising authority and capacity to incur debt by gaining market access that is available to sovereigns. Second, unprecedented urbanisation with concomitant growing infrastructure financing requirements has prompted SNGs to undertake borrowings. Following the principle of inter-generational equity, debt service costs in the case of such borrowings are spread across generations, as they also derive benefit from using the infrastructure over the long term. Third, private capital has increasingly become a source of sub-national finances and SNG bonds often compete with bank loans.

6.38 While the overall approach for assessment of fiscal/debt sustainability of SNGs is similar to that at the central government level, there are a few notable differences in respect of sub-national fiscal sustainability analysis. Unlike the central government, state governments cannot benefit from *seigniorage* revenues as they cannot issue their own currencies. Thus, a state government's sustainable level of debt based on its lifetime budget constraint refers to the outstanding debt stock level that does not exceed current and future primary surpluses. By this approach, theoretically investors would finance debt only if it is deemed sustainable. *De facto*, however, credit risks on SNG borrowings may get compromised in case there is implicit backing from the central government. Similarly, spreads of the yields on sub-national debt over those of the central government may not reflect fiscal performance, if market participants factor in history or the expectation of a bail-out by the centre. The sub-national borrowings may require the central government's concurrence. The existence of a federal framework may also limit the taxation autonomy of sub-national governments, with transfers from the central government becoming key sources of their revenues. In the Indian case, the central government also influences state government finances through the wage-setting process of government employees, thereby exogenously impacting the committed expenditures of the states. With the monetary policy being determined at the national level, state governments generally tend to be takers of the general interest rate environment.

6.39 With the adoption of fiscal rules by the Indian states, there has been considerable progress towards the re-orientation of government finances to achieve medium-term fiscal sustainability. Notwithstanding a deviation from the fiscal consolidation path following the fiscal stimulus measures undertaken during the post-global financial crisis period, the amended fiscal rules put in place by the state governments underscore the need for a phased reduction in elevated deficits and public debts to sustainable levels.

6.40 The issue relating to sustainability of state government debt in India has been examined by several researchers. Using matrix classification of states by debt accumulation, primary revenue balance and own tax buoyancy, Rajaraman *et al.* (2005) found that the more indebted states prior to 1997 saw a larger increase in their debt ratio by 2002-03. They also found that the interest rate on state debt exceeded the nominal growth rate of GSDP during the period 1997-2002, indicating the need for overall primary surpluses to stabilise the debt-GSDP ratio. Goyal *et al.* (2004) assessed the inter-temporal budget constraint using co-integration techniques and found that government finances were unsustainable both at the central and state government levels, though there appeared to be some signs of weak sustainability of combined finances.

6.41 Against the above backdrop, the sustainability of state government debt has been examined using indicator analysis for the consolidated position of all states, taking the period averages of various indicators during the four different phases (Table VI.8). The analysis shows that while the fiscal position during the period 1998-99 to 2003-04 was unsustainable in terms of most indicators, there has been a substantial improvement in the indicators during the fiscal consolidation period of 2004-05 to 2007-08. Not only were the necessary conditions for sustainability, such as higher growth of GDP than debt growth and higher real output growth than real interest rate, fulfilled, but also the primary balances for the consolidated state governments were in surplus during 2006-07 and 2007-08. While the necessary conditions for sustainability were met during the post-fiscal consolidation phase (2008-09 to 2012-13), the sufficient condition of primary surpluses was not met due to an increase in the primary deficit in the post-crisis years of 2008-09 and 2009-10. Debt is said to be tolerable if its servicing does not impose an intolerable burden on the fiscal position. Interest payments as one-fifth of revenue receipts is considered a tolerable ratio of interest burden (Dholakia *et al.*, 2004). Interest payments have been less than one-fifth of revenue receipts during the third and fourth phases, contributing to reduced debt servicing burden (Table VI.8).

6.42 Analysing the vulnerability of individual states in terms of debt burden (measured in terms of debt-GSDP ratio) and interest burden (measured in terms of interest payments-revenue receipts ratio) provides a useful indication of the susceptibility that states face. Tables VI.9A and VI.9B are matrices that classify NSC and SC states, respectively, based on varying degrees of vulnerability for the pre-debt consolidation period (1992-93 to 2001-02) and post-debt consolidation period (2002-03 to 2011-12 (RE)). In the post-debt consolidation period, the states have benefitted from interest relief under the DSS scheme during 2002-03 to 2004-05 and debt relief and consolidation under the DCRF from 2005-06 onwards. As West Bengal could not avail of the DCRF scheme until its enactment of the FRBM Act in 2010, it remained the only NSC state with a high debt-GSDP ratio (over 30 per cent) and a very high interest burden (over 25 per cent) in the post-debt consolidation period. The other three states that were similarly placed, *viz.*, Odisha, Punjab and Uttar Pradesh, were able to reduce their interest burden from above 25 per cent to the '15-25 per cent' bracket, but their debt levels continued to remain over 30 per cent of GSDP. Goa was the only state whose interest burden increased in the post-debt consolidation period to the 'high' vulnerability category compared to the 'medium' vulnerability category in the pre-debt

Table VI.8: Fiscal Sustainability of States: An Indicator Analysis

(Per cent)

S. No.	Indicators	Symbolic representation	1993-94 to 1997-98	1998-99 to 2003-04	2004-05 to 2007-08	2008-09 to 2012-13 (BE)
1	2	3	4	5	6	7
1	Rate of nominal growth of GDP (Y) should be more than rate of growth of debt (D)	Y	15.54	10.44	14.98	15.56
		D	14.47	18.31	10.16	10.90
		Y - D >0	1.07	-7.87	4.82	4.66
2	Real output growth (y) should be higher than real interest rate(r)	y	6.33	6.02	8.83	7.44
		r	0.87	5.99	2.35	-0.45
		y - r > 0	5.46	0.03	6.48	7.89
3 (a)	Primary Balance should be in surplus	PB/GDP >0	-0.73	-1.68	0.01	-0.71
3 (b)	Primary Revenue Balance (PRB) should be in surplus and adequate to meet interest payments (IP)	PRB / GDP > 0	1.00	-0.01	2.29	1.72
		PRB/IP>100	52.27	1.98	105.95	105.55
4	Interest Burden defined by Interest Payments (IP) to GDP ratio should decline over time	*IP / GDP↓↓*	1.82	2.45	2.28	1.66
5	Interest Payments as a proportion of Revenue Expenditure should decline overtime	IP / RE ↓↓	15.37	19.26	18.86	13.13
6	Interest Payment as a proportion of Revenue Receipts should fall over time	IP / RR↓↓	16.59	23.75	18.65	13.04

Note: 1. Real interest rate is measured as average interest rate (on outstanding debt) *minus* difference between nominal growth of GDP (Y) and real output growth (y).
2. Negative sign in 3(a) and 3(b) indicates deficit.

Table VI.9A: States Vulnerability Matrix -Non-Special Category

Debt/GSDP IP/RR		Debt-GSDP Ratios			
Ratio of Interest payments to Revenue Receipts		Very High (Above 50%)	High (30-50%)	Medium (20-30%)	Low (Below 20%)
Very High (Above 25%)	Pre-consolidation		Odisha Punjab Uttar Pradesh West Bengal		
	Post- consolidation		West Bengal		
High (15-25%)	Pre-consolidation		Bihar Kerala Rajasthan	Andhra Pradesh Chhattisgarh Gujarat Haryana Madhya Pradesh Maharashtra	
	Post- consolidation		Bihar Goa Kerala Odisha Punjab Rajasthan Uttar Pradesh	Andhra Pradesh Gujarat Haryana Maharashtra	
Medium (10-15%)	Pre-consolidation		Goa	Jharkhand Karnataka Tamil Nadu	
	Post-consolidation		Madhya Pradesh	Jharkhand Karnataka Tamil Nadu	
Low (10%)	Pre-consolidation				
	Post- consolidation			Chhattisgarh	

Note: Pre-debt consolidation refers to the period 1992-93 to 2001-02 and post-debt consolidation period refers to the period 2002-03 to 2011-12.

consolidation period. (Table VI.9A). Among the SC states, Jammu & Kashmir has benefitted from the debt consolidation, as its interest burden moved to the 'medium' vulnerability category in the post-debt consolidation period. Although Sikkim could avail of the DCRF scheme only in 2010 after it enacted its FRBM Act, its debt-GSDP and IP-RR ratios have been low in both the pre-debt consolidation and post-debt consolidation periods. Manipur was the only SC state that was worse off in the post-debt consolidation period, with deterioration in its debt-GSDP ratio from the 'high' vulnerability category to 'very high' vulnerability category (Table VI.9B).

6.43 To study the relative importance of various fiscal and policy variables in the determination of debt, the indicator analysis for examination of debt sustainability has been supplemented by a panel regression analysis on 17 NSC states for the pre-debt consolidation and post-debt consolidation periods. This suggests that during the pre-debt consolidation phase, fiscal variables, such as own revenue, central transfers and the different

Table VI.9B: States' Vulnerability Matrix -Special Category

Ratio of Interest payments to Revenue Receipts (IP/RR) \ Debt/GSDP		Debt-GSDP Ratios: Very High (Above 50%)	High (30-50%)	Medium (20-30%)	Low (Below 20%)
Very High (Above 25%)	Pre-consolidation				
	Post-consolidation				
High (15-25%)	Pre-consolidation	Himachal Pradesh Jammu and Kashmir		Assam	
	Post-consolidation	Himachal Pradesh			
Medium (10-15%)	Pre-consolidation		Manipur Nagaland Tripura Uttarakhand		
	Post-consolidation	Jammu and Kashmir Manipur	Nagaland Tripura Uttarakhand	Assam	
Low (10%)	Pre-consolidation	Mizoram Sikkim	Arunachal Pradesh	Meghalaya	
	Post-consolidation	Arunachal Pradesh Mizoram Sikkim	Meghalaya		

Note: Pre-debt consolidation refers to the period 1992-93 to 2001-02 and post-debt consolidation refers to the period 2002-03 to 2011-12.

components of expenditure had a significant impact on the debt dynamics. The growth in nominal GSDP did not play an important role. In contrast, during the post-debt consolidation phase, the growth in nominal GSDP assumed significance in reducing the debt-GSDP ratio of the states. Among the other identified explanatory variables, while own revenue, central transfers and revenue expenditure continued to remain significant, capital outlay and net lending lost some of their significance. The central government policy initiatives had also contributed in reducing the interest burden of the states, which was reflected in the decline in the interest payments to revenue expenditure ratio during this period. Given the limited headroom in central government finances, substantial debt and interest relief from the centre may not be forthcoming. Hence, states would have to focus on revenue enhancing and expenditure compression measures, with a greater emphasis on the latter, to improve their debt sustainability (Box VI.2).

9. Concluding Observations and the Way Forward

6.44 The reversal of the interest rate cycle in the mid-2000s played a critical role in alleviating the interest burden on debt and ensuring that the debt did not grow along an explosive trajectory for the states in India. This was complemented by efforts at fiscal consolidation and institutional reforms to get on the fiscal correction path. Constitutional

Box VI.2
Sustainability of Sub-National Government Debt

Debt sustainability is a term that has been used with increasing frequency in the academic literature and multilateral policy discussions, but with different connotations under different circumstances (Balassone and Franco, 2000; Chalk and Hemming, 2000). Domar (1944), who was a pioneer in developing the debt sustainability framework, postulated that the growth rate of income exceeding the interest rate was a necessary condition for debt sustainability. Subsequently, Buiter (1985) suggested that sustainable policy is one that is capable of keeping the public sector net worth to output ratio at its current level. Blanchard (1990) provided two conditions for sustainability: a) the ratio of debt to GNP should eventually converge back to its initial level, even if there is excessive variation in the short term, and b) the present discounted value of the ratio of primary deficits to GNP should be equal to the negative of the current level of debt to GNP. The debt sustainability issue revolves around the SNG's inter-temporal or the present value budget constraint.

There is no internationally established threshold for assessing the sustainability of SNG debt. Debt sustainability is defined as a level of indebtedness that does not generate payment difficulties (Quintanilla, 2009) and therefore is linked to the ability of the government to service its debt. It is monitored in terms of credit worthiness (solvency) indicators (nominal debt stock/ own current revenue ratio, present value of debt service/own current revenue ratio); and liquidity indicators (debt service/current revenue ratio and interest payment/current revenue ratio). These indicators broadly enable an assessment of the ability of SNGs to service interest payments and repay debt as and when it becomes due through current and regular sources of revenues.

Fiscal and debt sustainability are inter-related; the latter has assumed significance with the adoption of debt rules as part of a fiscal rules framework. Apart from examining debt sustainability in a static framework, empirical studies have also analysed this issue taking into account the uncertainties about medium-term projections of economic growth, primary balance, cost of public sector borrowings and existence of implicit guarantees, and fiscal reaction functions incorporating dynamic properties of fiscal policy-making. Further, the evaluation of joint sustainability of the separate fiscal policies of member countries in the euro zone has been attempted in a panel framework.

In the Indian context, the debt situation of state governments has transited from a phase of unsustainable debt levels and increasing interest burden to a phase of fiscal consolidation and moderation in debt levels. The improvement in terms of sustainability indicators in the fiscal consolidation phase reflects the adherence to fiscal rules, including a phased reduction in debt levels, even though it was also backed by policy measures *viz.,* debt restructuring/ consolidation and relief measures. It is against this backdrop that a panel data framework has been used to analyse the improvement in the debt position of 17 non-special category states in terms of state-level fiscal and macroeconomic variables. The panel data analysis was conducted for the pre-debt consolidation phase (1992-93 to 2001-02) and the post-debt consolidation phase (2002-03 to 2011-12). The post-debt consolidation period was identified based on the introduction of the debt swap scheme (DSS) in 2002-03. While the dependent variable was taken to be incremental debt-GSDP ratio, the chosen explanatory variables were grouped into two categories: (a) states fiscal indicators, *viz.,* own revenue, central government transfers to states, revenue expenditure, capital outlay and net lending; and (b) growth in nominal GSDP as the macroeconomic variable. All the explanatory variables have been taken as a proportion to GSDP. The analytical framework attempts to capture the cross-sectional as well as the time series dimension of the state-level data. The panel was estimated through a fixed effects model, using the generalized least squares regression method with cross section weights. The model has been adjusted for heteroskedasticity with "White" cross-section standard errors and covariance corrected for degrees of freedom. The empirical results from the panel regression exercise are presented in Table 1.

Table 1: Panel Regression Results

Explanatory Variables	Period I (1992-93 to 2001-02)	Period II (2002-03 to 2011-12)
Constant	0.01 (0.70)	0.04 *** (2.88)
Own revenue receipts	-0.91 *** (-13.27)	-0.70 *** (-4.72)
Central Transfers	-0.93 *** (-9.88)	-0.72 *** (-5.88)
Revenue Expenditure	0.94 *** (18.43)	0.62 *** (10.46)
Capital Outlay	0.75 *** (5.62)	0.20 * (1.88)
Net lending	0.96 *** (8.08)	0.19 * (1.73)
Growth in GSDP	0.00 (0.51)	-0.02 ** (-2.23)
Total pool observations	170	170
Adjusted R-squared	0.79	0.60

Note: Figures in parentheses represent the respective t values. *, ** and *** denote significance at 10%, 5% and 1% levels, respectively.

(Contd....)

(....Concld.)

During the pre-debt consolidation phase, it was found that, among the identified variables, states' own revenue, central transfers, revenue expenditure, capital outlay and net lending had a significant impact on state government's debt in the expected directions. The impact of growth in GSDP was, however, statistically insignificant. During the post-debt consolidation phase, the growth in GSDP turned significant, reflecting the positive impact of the high GSDP growth in reducing the debt-GSDP ratio of the states. Among the fiscal variables, states' own revenue, central transfers and revenue expenditure continued to remain significant in the post-debt consolidation phase. It may be noted that the explanatory power of the model came down during the second period as reflected in a lower value of adjusted R squared indicating the presence of other factors. An important factor at play during this period was the central government policy initiatives that helped reduce interest payments and the level of debt.

Interest payments constitute a significant proportion of revenue expenditure of the state governments. The increase in debt-GDP ratio during the first period was mainly on account of an increase in the ratio of interest payments to revenue expenditure from 13.7 per cent in 1992-93 to 19.9 per cent in 2001-02. In contrast, during the second period, the interest payments to revenue expenditure ratio came down considerably from 20.9 per cent in 2002-03 to 12.3 per cent in 2011-12 (RE). This reflects the combined impact of a reversal in the interest rate cycle and central government policy initiatives *viz.,* DSS and DCRF.

Although central government policy measures helped reduce the debt level of the states in the post-debt consolidation phase, given its *ad hoc* nature, states may have to focus more on revenue-enhancing and expenditure compression measures to improve their debt sustainability in the medium term.

arrangements and restrictions on borrowing enabled the onset of fiscal correction in an appropriate manner. Although states have faced fiscal stress, systemic insolvency and defaults have not occurred. The debt and interest relief provided by the centre were linked with the implementation of fiscal reforms and thereby helped avoid moral hazard problems. However, while the focus has been mainly on direct debt obligations, contingent liabilities pose a risk to state finances, unless monitored and adequately controlled. Moreover, the aggregate picture masks interstate disparities and vulnerabilities, which require customised reforms and correction packages rather than a one-size-fits-all approach. Although the global financial crisis has had a relatively insignificant impact on Indian states, policymakers must take cognisance of the fact that despite the absence of systemic insolvency and defaults, high debt reduces the manoeuvrability and flexibility of policy to respond to shocks. Strengthened debt management capacity and institutional arrangements at the state level, with a more active risk management approach, will be required to meet future challenges.

6.45 In the discussion on states' debt sustainability, debt is mostly taken to be on gross basis. Alternatively, states' debt sustainability may be viewed from the perspective of debt net of surplus cash balances, since in recent years most of the states have been holding surplus cash balances that add to their assets. While large cash balances would help mitigate the debt burden of the states to some extent, it should be noted that these balances have been built through excess borrowings by the states and hence add to their interest burden.

6.46 An indicator analysis for the states shows progress on most indicators of fiscal and debt sustainability since the onset of fiscal consolidation. Although the necessary and sufficient conditions for sustainability were met during the phase of fiscal consolidation, the sufficient condition of primary surpluses has not been fulfilled in the post-fiscal consolidation period, indicating the need to limit non-interest expenditure. Empirical evidence using panel regression analysis shows that apart from policy measures in the form of the DSS and the DCRF, the reversal of the interest rate cycle and growth in nominal GSDP contributed to the debt reduction. It may be noted that in the post-fiscal consolidation phase, states' debt was contracted at lower interest rates than in the past, due to the prevalence of a low interest regime. This factor, together with the deterioration in central government finances in the post-crisis period, limits the scope for debt forgiveness and debt waiver of the magnitude seen earlier. Moreover, off-budget contingent liabilities are increasingly being taken over by state governments as in the case of the financial restructuring scheme for state discoms. This would add to the debt burden of the states.

6.47 Hence, to address the issue of debt sustainability, states should rely more on durable and sustainable revenue-enhancing and expenditure compression measures. Since the revenue-enhancing measures have limitations as revenue cannot be augmented beyond a limit and are prone to cyclicality, the focus has to be on prudent expenditure management that limits the non-interest expenditure in the medium term. This would help arrest the build-up of state debt and also provide counter-cyclical buffers in the event of an economic slowdown. Given the similarities of the sub-national FRBM Acts with that of the centre, reforms in the state FRBM Acts should be consistent with those of the centre, in terms of ensuring well-defined targets and statistical standards, enhancing fiscal transparency, incorporating an expenditure-rule framework, providing for an independent assessment of compliance with the rules and strengthening of automatic correction mechanisms for deviations from the rules.